The author, in discussing this case, suggests the probability of there existing two forms of verbal blindness; in the one there is loss of memory of the form, and in the other of the signification of the written words. E.N.B.

Atavism, Involving Three Generations.—Deane (*Pacific Med. Jour.*, January, 1894). First generation.—Husband of good heritage, mentally above the average, alcoholic, syphilitic, died a paralytic. Wife, of good family also, petite, negative disposition, moral qualities not highly developed, refined, still alive. Second generation.—Children of above, eight in number, four boys and four girls. First born, now forty years old, a good-for-nothing drunkard, mentally and physically below normal. Second, boy, lost at sea. Third, boy, mentally and physically below normal; died of phthisis. Fourth, boy, phthisical, homicide, married beneath him socially, has two children, eldest has marked dolicocephalic head. Altogether he is a bad citizen. Of the girls, the first lapsed from virtue at an early age, and later developed nymphomania. The second girl married early and had three children. The first an idiot, the other two mentally and physically below normal. In later years the mother developed exopthalmic goitre. The third girl died in infancy. The fourth girl is the superior of any of the other children, and shows no sign of physical or physical depravity. An aunt of these children was insane. J. C.

THERAPEUTICAL.

On Cerebral Tumors and their Surgical Treatment.—At a meeting of the Association of Alienists of Lower Saxony and Westphalia, held in Hanover, May 11, 1893, Dr. Bruns reported the following cases:

I.—Female, 31 years of age. General symptoms: vomiting, headache, choked disks. Focal symptoms: subcortical alexia (Wernicke) and right homonymous hemianopsia. Comprehension of words preserved; spontaneous speech, with slight paraphasia and scarcity of nouns. Repetition of words good. Objects held before her are recognized, but not named. When the name is told her she repeats it correctly, but forgets it at once. The word is not forthcoming, even by the aid of examination with her hand. Inability to read words; letters seem the same as objects, being recognized but not named.

Writing, spontaneous and possible from dictation, but quite bad. Copying impossible.

Slight paresis of right side with occasional patellar and ankle clonus. Frequent attacks of transient total blindness. Dullness on percussion over apex of right lung.

Diagnosis: Tumor in left occipital lobe, probably tubercular. Operation, April 5, 1892. No tumor was found either on the convexity or on the inner side of the left occipital lobe, nor in the subjacent parts of the temporo-parietal lobe. Persistent flow of cerebro-spinal fluid. Retrogression of all general symptoms, such as vomiting and headache, and especially complete subsidence of the choked disks.

Local symptoms unchanged. During June and July, condition good. In August, gradually getting worse. Ultimately, word-deafness and distinct right hemiplegia. Death, August 27th.

Gliosarcoma with extreme vascularity in white matter of right occipital lobes extending to the pulvinar. Similar tumors were situated in the cortex at the extreme posterior end of the first left temporal convolution and in the left gyrus hippocampi.

The tumor in the temporal convolution was not demonstrable at the time of the operation.

This is the third case of subcortical alexia with autopsy (v. Monakow, Dejerine). All confirm Wernicke's assumption as to the location of the lesion.

II.—Female, 30 years of age. Subject to epileptic attacks since 1879. During the last few years the seizures have been less frequent, but severe attacks of migraine have taken their place. In April, 1892, a definite diagnosis of cerebral tumor was made,—optic neuritis, rapid increase of headache and bulbar symptoms. No localizing symptoms. By July all symptoms had increased without local manifestations. Serious involvement of respiratory and cardiac action. Operation July 27th. Small trephine opening over left parietal lobe. Marked hernia cerebri. No loss of cerebro-spinal fluid. Headache disappeared. Choked disks remained and gradual blindness developed. Paraphasia without word-deafness; reading preserved; writing seriously impaired. No hemianopsia. These disturbances were very likely produced by the trephining.

General condition good until August 27th.

From about the 7th of September, suddenly and without recognizable cause, there was a discharge of cerebral fluid. The prolapsed portion of the brain receded and the paraphasic symptoms disappeared. Agraphia. The optic neuritis also subsided, but she was nearly blind.

Toward the end of September, increase of bulbar symptoms. Death from pneumonia (Schluck-pneumonie) October 5th. Large sarcoma in right frontal lobe growing toward the base and making direct pressure on the chiasm, pons medulla, and cerebellum markedly compressed to the size of that of a five-year-old child. Tumor well defined in two parts, one being old and calcified, and the other of recent development and soft.

III.—Female, 50 years of age. Most pronounced general symptoms of tumor. Attacks of severe headache with vomiting, delirium and syncope. Optic neuritis. Aphasia of the same character as that produced by the operation in Case II. Word comprehension preserved, but only interfered with at the height of the paroxysm of headache. Marked paraphasia. Normal repetition of words. Reading normal. Agraphia. Objects held before her are not always named correctly. No hemianopsia. Transitory pain and slight weakness on the entire right side. Exquisite circumscribed pain on percussion of the skull, over the posterior portion of the right temporal lobe. Diagnosis: Tumor in the posterior portion of the right temporal lobe, probably involving the second temporal convolution. Trephining at this point on September 5th. A tumor was found with its upper border directly in the trephine opening, the lower border being about 2 ctm. from the fissure of Sylvius. Posteriorly, it did not extend beyond the temporal lobe. Its extent could not be distinctly defined. Cheesy portions were removed, which were supposed to be tubercular. Microscopical examination showed it to be sarcoma with caseation.

Despite the fact that there was no loss of cerebrospinal fluid, marked decrease in the intracranial pressure took place, the choked disks receded, the headache subsided and she was able to sleep without medicine.

The aphasic symptoms were not improved. About the middle of November, 1892, she got worse so rapidly that another operation was out of the question. Gradually, right hemiplegia and hemianopsia. After December in condition of hebetude. Death on February 7, 1893. Autopsy. The large tumor which had grown since the operation, now extended upward above the

Sylvian fissure, and involved the largest part, especially of the posterior portion of the base of the left temporal lobe. The cortex underneath was softened. The tumor in its growth had not coalesced with the brain.

Bruns then gives a statistical review of the tumor cases observed by him, with special reference to the question of operation.

Among 2,200 patients with mental or nervous disease, the diagnosis of cerebral tumor was made in thirty-two, or about 1½%. Sixteen of these were operated upon. One was incorrectly diagnosed. In four, tumor was diagnosed without localization; three of these being multiple tumors.

In all of the remaining eleven cases operated upon, a correct localization was made; four were situated in the frontal lobe (one hæmatoma of the dura, one sarcoma, one glioma), and the fourth case being that published by Hitzig, who was operated upon by Bramann and is still living (*Berlin Klin. Woch.*, 1892, 715). One in the left temporal lobe. One in the left occipital lobe. Three in the pons (one tubercular, one gumma, one glioma). Two in the cerebellum (one tubercular, one sarcoma). Of the sixteen not operated upon, several of whom are still living, four were without definite localization. In six, he thought there were some symptoms favoring localization, but was unwilling to give a positive opinion. In one case, as subsequent observation showed, there was no tumor, but a multiple sclerosis, with pronounced optic neuritis at the first examination. In 68.75%, a correct local diagnosis was made; in 25% a correct general diagnosis. The most important factor relating to operative interference is correct localization. Of the eleven cases with accurate diagnosis as to the seat of the lesion, five proved at once unsatisfactory for operation on account of the location of the tumor (three in the pons and two in the cerebellum). So far as he could learn all cases of cerebellar tumor had died as the immediate result of the operation. The diagnosis as to the character of the growth is almost equal in importance to the localization. The possibility of its removal depends largely as to whether the tumor is sharply limited, or diffused through the brain substance. We have no positive signs for determining this. It is also desirable to know something as to its size. This, however, seems to be impossible, yet the case of Hitzig-Bramann teaches that very large tumors can be successfully removed. In the majority of cases we are unable to satisfactorily determine the presence of multiple growths. Finally, it is impossible to say whether the tumor is situated in the white substance or in the cortex.

According to his views, the justification for operating for brain tumor must be conceded, and he believes that the operation will not be discarded. Even after a partial extirpation of the growth there is frequently improvement in the general symptoms.

This is brought about by the diminution of the intracranial pressure ; first, by a partial removal of the tumor ; second, as the tumor is situated directly at the trephinie opening and grows into it, and third, through the loss of cerebro-spinal fluid.—(Neurolog. Centrbl., No. 11, 1893). W. M. L.

Contribution to the Study of the Therapeutic Action of the Liquid Extract of Sheep's Brains in Adults and Infants.—Dr. Moncorvo. (*Bulletin Général de Thérapeutique*, November 15, 1893.)

The subjects experimented upon comprise two groups : first, children between the ages of two and ten years, of which four were boys and nine were girls ; second, adults between the ages of eighteen and fifty-three years, of which two were men and three were women. The first group received in all 187 injections of one gramme of the extract. The second group received 196 injections. The point chosen for the injections was, in general, the interscapular region near the margin of the scapula. With antiseptic precautions, not the slightest local reaction was ever observed.

In the first group there were as follows :

Tuberculous coxalgia, three cases (one girl and two boys) ; hereditary syphilis and paraplegia, one case (girl); hereditary syphilis and bronchial adenopathy, two cases (a boy and a girl) ; paraplegia consecutive to scarlatina, one case (girl) ; cerebral syphilitic sclerosis, one case (boy) ; pulmonary tuberculosis, two cases (girls) ; hysteria, one case (girl) ; hysteria and chorea, two cases (girls).

In the second group were the following :

Reichman's disease, consecutive cachexia, one case (man) ; tabes dorsalis, one case (man) ; hysteria, two cases (women) ; neurasthenia and anæmia, one case (woman).

The tonic action of the extract in these cases was very manifest. The muscular forces were improved, the cerebral faculties reinforced, the appetite bettered, insomnia